

ABSTRACT

The present invention provides an enhanced method and
5 device to inhibit or reduce the rate of restenosis
following angioplasty or stent placement. The invention
involves placing a balloon tipped catheter in the area
treated or opened through balloon angioplasty immediately
following angioplasty. The balloon, which can have a dual
10 balloon structure, may be delivered through a guiding
catheter and over a guidewire already in place from a
balloon angioplasty. A fluid such as a perfluorocarbon may
be flowed into the balloon to freeze the tissue adjacent
the balloon, this cooling being associated with reduction
15 of restenosis. The catheter may also be used to reduce
atrial fibrillation by inserting and inflating the balloon
such that an exterior surface of the balloon is in contact
with at least a partial circumference of the portion of the
pulmonary vein adjacent the left atrium.

20